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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,545	09/22/2006	Raimo Sepponen	47730-5001	4371
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EXAMINER MEHMOOD, JENNIFER				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/568,545

Applicant(s)

SEPPONEN, RAIMO

Examiner

JENNIFER MEHMOOD

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/02)
Paper No(s)/Mail Date 5/13/2009
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Specification

1. The amendments to the specification received on May 13, 2009 are acceptable by the Examiner.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 7, 15 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Regarding claim 1, the phrase "some" (line 5) renders the claim indefinite because it is unclear which area of the environment the applicant is referring to. Furthermore, the term "some" is unquantifiable.
5. Regarding claim 15, the phrase "capable of performing" (line 3) renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
6. Regarding claim 20, the phrase "and/or" (line 2) renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
7. Claim 1 recites the limitation "said distribution of conductor" in line 8.
8. Claim 7 recites the limitation "the evaluation" in line 4.
9. Claim 20 recites the limitation "the arrangements" in line 4.
There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wymore (US 6,515,586) and further in view of Eisenmann et al. (US 6,335,684).

For claim 1, Wymore discloses a method to monitor localization, posture, movement or properties of one or several objects to be monitored (Fig. 5, items 512 and 516), in an environment to be monitored (col 12, lns 29-44), wherein in some area of the environment to be monitored, there is a transducer which is composed of a distribution of conductors (col 9, lns 37-41; Fig. 5, items 102, 202), which are electrically insulated from the object and said distribution of conductor includes at least a first division of selectable conductors and a second division of selectable conductors (col 11, lns 42-61; col 12, lns 45-52 – separate rows, columns, grid, array of sensors located in different areas of an environment, such as different rooms), the method comprising the steps of a) selecting the conductors of the first division of conductors and conductors of the second division of conductors and connecting an excitation signal to the selected first division of conductors and performing a scanning cycle of the selected divisions of the selected conductors when the excitation signal is connected to the first division of the

selected conductors (col 12, lns 36-44 – selecting different areas of the environment to scan); b) deriving a first signal from a coupling of the excitation signal between the first and the second selected divisions of conductors, and processing said first signal to obtain information about the object for characterization of the object (col 12, lns 45-67). While Wymore discloses obtaining information about the object for characterization of the object, Wymore does not disclose obtaining information about the impedance of the object. Eisenmann, on the other hand, discloses obtaining information about the impedance of an object (col 2, lns 56-62; col 3, lns 9-15; Fig. 1). It would have been obvious to one of ordinary skill in the art, at the time the invention was made to include obtaining information about the impedance of an object, as disclosed by Eisenmann, and apply it to the information obtained by Wymore, so that accurate information is obtained about an object such as, size of object, a change of position and object is out of position (col 2, lns 5-12 – Eisenmann).

For claim 2, Wymore discloses said scanning cycle is repeated by selecting the first or second division of conductors to contain one or several conductors other than the conductors of the first or second division of conductors selected during a previous scanning cycle (col 4, lns 34-39 and 64-67; col 5, lns 1-5; col 10, lns 57-67; col 11, lns 42-61).

For claim 3, Wymore discloses wherein from said first signal one derives information about essentially internal properties of the object (col 9, lns 60-65; Fig. 2, item 202).

For claim 4, Wymore discloses wherein from said first signal information which is characteristic to the object is derived, wherein the information includes information about electrical conductivity and variations in that electrical conductivity, and wherein said information is used to recognize the object (col 9, Ins 60-67; col 11, Ins 15-20 and 56-67).

For claim 5, Wymore discloses the excitation signal evokes a second signal in a special means and the second signal is received by a receiving means (Fig. 1, items 111, 112 and 114; col 3, Ins 18-25; col 10, Ins 40-56).

For claim 6, Wymore discloses wherein said second signal contains information related to the object (col 4, Ins 42-63).

For claim 7, Wymore discloses wherein information derived from one or both of said first and second signals is evaluated using criteria which are either fixed, preset or adaptable and based on results of the evaluation, the method further comprises performing a known action (col 11, Ins 44-67).

For claim 8, Wymore discloses wherein information derived from one or both of said first and second signals is stored in memory means in order to observe temporal dependence of behavior of environments to be monitored and of objects (col 4, Ins 7-25 and col 11, Ins 30-36).

For claim 9, Wymore discloses information derived from one or both of said first and second signals is used to adapt a status of artificial intelligence (col 5, Ins 46-59).

For claim 10, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 1 as stated above. In addition, Wymore, does not provide that

the conductors are galvanically isolated from the object. Eisenmann, however, discloses that the conductors are galvanically isolated from the object (Fig. 1, items 1-5 and each ground wire for conductors 4 and 5). It would have been obvious to one of ordinary skill in the art, at the time the invention was made to include the conductors, disclosed by Wymore, to include galvanized isolation from an object, as disclosed by Eisenmann, to enhance the protection of the system from human contact.

For claim 11, Wymore discloses wherein the arrangement further includes a signal processing means to process the first signal from transducer means and to derive information related to properties of the object (col 9, Ins 60-65; Fig. 2, item 202).

For claim 12, Wymore discloses wherein the signal processing means includes means to transfer information derived from an object forward via a first transmission path (col 9, Ins 37-55; col 10, Ins 40-56; Fig. 3, item 222 and 104).

For claim 13, Wymore discloses wherein the transducer includes components to detect at least two different physical quantities (col 10, Ins 1-10).

For claim 14, Wymore discloses wherein the first signal produced by the transducer means is based at least partially on an electric field coupling between the object and the transducer means (col 10, Ins 25-30).

For claim 15, Wymore discloses wherein the signal processing means includes means which are capable of performing adaptive functions or other means of artificial intelligence (col 3, Ins 1- 17).

For claim 16, Wymore discloses wherein the arrangement includes means to store spatial information related to the transducer means (col 4, Ins 7-25 and col 11, Ins 30-36).

For claim 17, Wymore discloses wherein via the transducer means information about localization of at least one division of selectable conductors (col 6, Ins 44-54; col 11, Ins 43-61) and means to transfer this information is forwarded via a second transmission path (col 3, Ins 50-67; col 10, Ins 40-56).

For claim 18, Wymore discloses wherein the arrangement includes a special means, which generates a second signal by an effect of the excitation signal (col 4, Ins 50-63).

For claim 19, Wymore discloses wherein the arrangement includes means to form a contact via a transmission path to be used in receiving or transmitting control information, in receiving or transmitting localization information or receiving or transmitting time information or for other communication with other systems (col 3, Ins 50-67).

For claim 20, Wymore discloses wherein information derived from the first signal, the second signal and/or the excitation signal is used to perform control functions with some means of the arrangements wherein the control functions include controlling a robot, lighting, air conditioning, alarm systems, announcement systems or locking (col 3, Ins 18-30).

For claim 21, Wymore discloses wherein the arrangement includes means to derive information characterizing movement of an object (col 10, Ins 22-25).

For claim 22, Wymore discloses wherein at least one division of selectable conductors of the transducer means are placed near a floor, a wall or a ceiling surface, on which or near which an object has access (col 3, lns 1-17).

For claim 23, Wymore disclose the arrangement wherein at least one division of selectable conductors of the transducer means are placed near surfaces of the environment to be monitored (Figs. 2 and 3; col 2, lns 14-20).

For claim 24, Wymore discloses the arrangement wherein at least one division of selectable conductors of the transducer means is realized by using some conductors which are in construction elements of the environment to be monitored (col 3, lns 10-14).

For claim 25, Wymore discloses the arrangement wherein the special means includes means to implement information in the second signal generated by the special means (col 12, lns 29-45).

For claim 26, Wymore disclose the arrangement wherein one or several properties, of the excitation signal are different when the second signal generated by the special means is evoked referenced to localization of an object (col 3, lns 37-50).

For claims 27 and 32, Wymore discloses one or several objects to be monitored include a human body, an animal or a robot (col 11, lns 60-67; Fig. 5, items 512 and 516).

For claims 28 and 33, Wymore discloses the environment to be monitored includes a residence, a public space, an industrial space, an office space or an animal shelter (Fig. 5; col 13, lns 16-26).

For claim 29, Wymore discloses the area of the environment to be monitored includes a floor, a wall, or a ceiling (col 5, Ins 33-67; col 13, Ins 2-7).

For claim 30, Wymore discloses wherein internal properties of the object include an electric conductivity and its variations, a distribution of tissues in a body, a distribution of fluids, or a function of the heart or respiration (col 9, Ins 60-65).

For claim 31, Wymore discloses at a certain moment registered information which is derived from the first or second signals is stored and this information is used as reference information for derived information at a later moment (col 11, Ins 30-38; Fig. 4).

For claim 34, Wymore discloses properties of the object include a function of the heart, respiration or an electric conductivity (col 9, Ins 60-65).

For claim 35, Wymore discloses the first transmission path includes a telephone network or a digital television network (col 3, Ins 50-65).

For claim 36, Wymore discloses at least two different physical quantities include electrical coupling and acoustic energy (col 9, Ins 40-65).

For claim 37, Wymore discloses an environment to be monitored (col 3, Ins 9-11), but does not disclose that the environment includes an area surrounding a hazardous substance, an area surrounding a piece of artwork or an area surrounding an artifact. However, it would have been an obvious design choice to monitor an area around anything a user would want protected, thereby eliminating the risk of theft.

For claim 38, Wymore discloses construction elements include concrete, iron, air conditioning pipes, air conditioning ducts, water pipes or electrical conductors (col 5, lns 45-51).

For claim 39, Wymore discloses the special means includes a RFID circuit, a transducer (col 9, lns 45-65) or an active circuit.

Response to Remarks

12. Applicant's arguments filed April 13, 2009 have been fully considered but they are not persuasive.

The Applicant argues as follows:

Wymore fails to disclose for claim 1: 1) selecting conductors of first and second divisions of conductors; 2) connecting an excitation signal to the selected first division of conductors and performing a scanning cycle; 3) deriving a first signal from a coupling of the excitation signal between first and second selected divisions; 4) processing the first signal to obtain information about impedance of the object.

Wymore fails to disclose for claim 10: 1) a distribution of conductors galvanically isolated from the object; 2) first and second divisions of selectable conductors; 3) means to perform a scanning cycle; 4) means to generate an excitation signal; 5) means to selectively connect said excitation signal to the first division of selectable conductors; 6) means to derive a first signal related to a coupling through impedance of the object; and 7) means for detecting changes of the impedance of the object to be monitored.

The Examiner responds as follows:

The Examiner concedes that for claim 1, Wymore does not disclose 4) processing the first signal to obtain information about impedance of the object and for claim 10, Wymore does not disclose 1) a distribution of conductors galvanically isolated from the object 6) means to derive a first signal related to a coupling through impedance of the object; and 7) means for detecting changes of the impedance of the object to be monitored. Since all of these limitations were added as claim amendments, the Examiner relies upon Eisenmann to teach these limitations – see the rejection to claim 1. As for parts 1)-3) of claim 1, Wymore

As for the rest of the claim limitations, Wymore discloses first and second divisions of conductors wherein an array of sensors or grid are divided into rows and/or columns of a plurality of sensors whereby a user has the option of selectively activating the sensors (col 6, lns 43-65; col 11, lns 43-64). Furthermore, Wymore discloses an excitation signal which performs a scanning cycle (col 12, lns 36-44).

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). See MPEP § 706.07(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Mehmood whose telephone number is (571) 272.2976. The examiner can normally be reached on M-F from 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Toan Pham, can be reached at (571) 272.2967. The fax phone number for the organization where this application or proceeding is assigned is (571) 273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jennifer Mehmood/
Primary Examiner
June 17, 2009